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Attagenus holmi n. sp. (Coleoptera: Dermestidae) from South Africa, with notes on *A. prescutellaris* Pic and *A. rufiventris* Pic

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Abstract

Attagenus holmi **n. sp.** from South Africa is described and illustrated. It is compared with the similar species *Attagenus prescutellaris* Pic, 1927, which is redescribed and illustrated.
Keywords: Taxonomy, new species, nomenclature, Coleoptera, Dermestidae, Attagenini, *Attagenus*, South Africa.

Zusammenfassung

Attagenus holmi **n. sp.** aus Südafrika wird beschrieben und abgebildet. Die neue Art wird verglichen mit der ähnlichen Art *Attagenus prescutellaris* Pic, 1927, die wiederbeschrieben und abgebildet wird.

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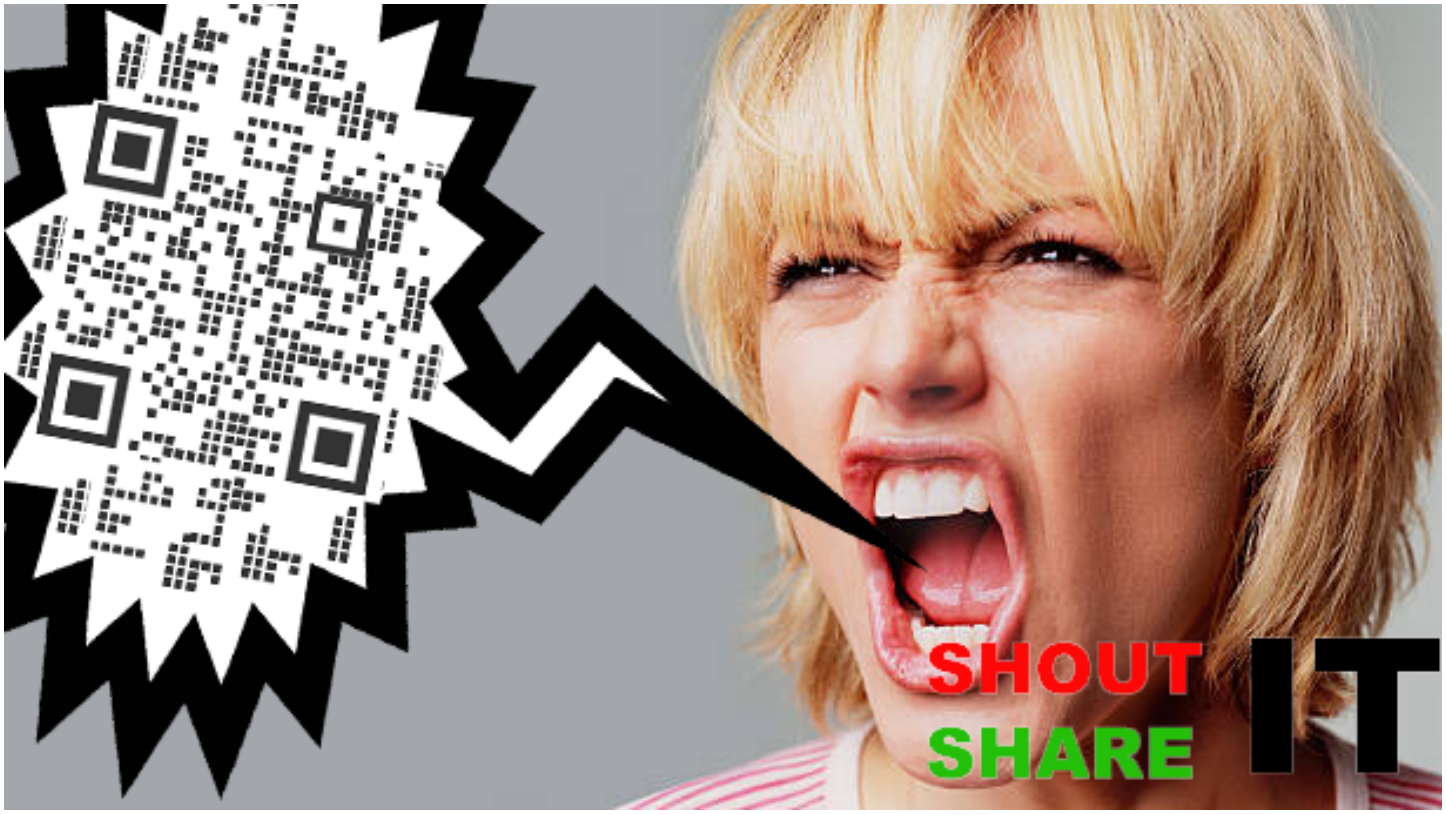
1 Introduction

The dermestid genus *Attagenus* Latreille, 1802 contains about 180 species and subspecies worldwide (Háva 2003a, 2005). The present paper considers the preceding taxonomical papers on the species of *Attagenus* from the Afrotropical region (Thunberg 1815; Reitter 1881; Péringuey 1885, 1886; Kalík 1955; Háva 2003b, 2003c). During the determination of some specimens from the Transvaal Museum, Pretoria, South Africa, the present authors found a new species of the genus *Attagenus* from South Africa.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2 Materials and methods

The following abbreviations refer to the collections, in which the examined material is deposited:

DEIC	Deutsches Entomologisches Institut, Müncheberg [formerly Eberswalde], Germany
JHAC	Private Entomological Laboratory and Collection Jiří Háva, Prague, Czech Republic
MNHN	Muséum National d'Histoire Naturelle, Paris, France
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany
UPSA	University of Pretoria, Pretoria, South Africa
ZMAN	Zoölogisch Museum, Amsterdam, The Netherlands
ZMUB	Zoologisches Museum, Museum für Naturkunde der Humboldt-Universität, Berlin, Germany

The size of the beetles or of their body parts can be useful in species recognition and thus, the following measurements were made:

EW	elytral width = maximum elytral width
TL	total length = distance from anterior margin of pronotum to apex of elytra

The type specimens of the newly described species are provided with the following labels: "HOLOTYPE [or PARATYPE]" "*Attagenus holmi* sp. n. V. Kalík det. 1989" [white printed label: *Attagenus*, V. Kalík det. 1989; red hand-written: *holmi* sp. n.].

Locality labels of the mentioned material are cited in the original spelling. Separate labels are indicated by backslashes "\". Remarks of the authors of the present paper are given in square brackets "[ ]".

The colour shades in the descriptions are classified according to Paclt (1958), the terminology of integumental structures follows Harris (1979).

3 Taxonomic part

3.1 *Attagenus holmi* n. sp. (Figs. 1–5)

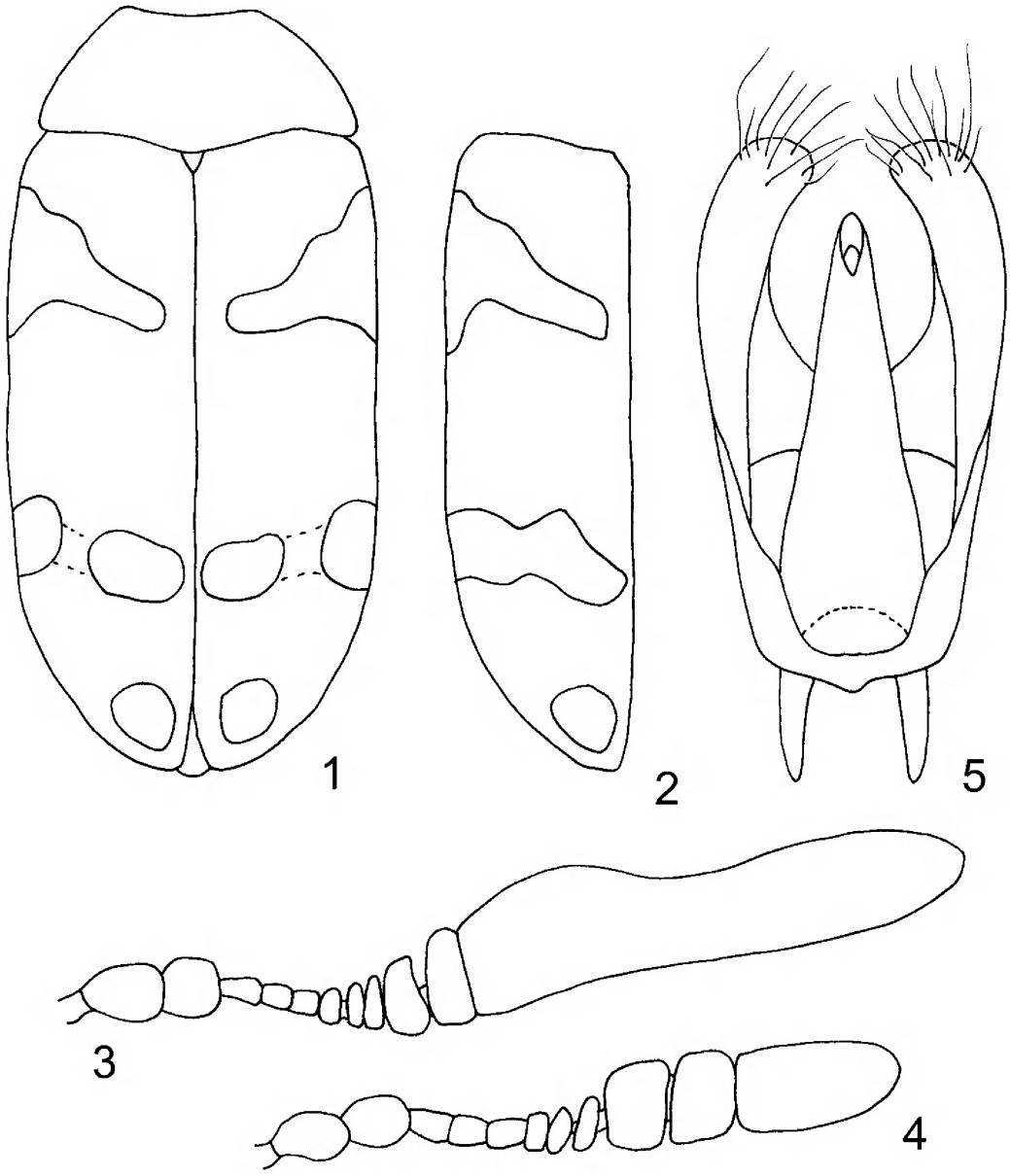
Material

Holotype (♂): "Nylsvley, Naboomspruit [24°30′S, 28°43′E, Northern Province], Rep. S. Afr. SE 2428 DA, 1100 m, Savana Ecosystem, Research Project C.S.I.R." \ "Date 5.viii.1975, Habitat G Trap Series no 955, E. Holm, F. Kirsten, C. Scholtz [lgt.]" (UPSA).

Paratypes (2♂♂, 3♀♀, all labelled with the same locality and the same collectors as holotype): ♀: "Date 12.v.1975, Habitat D Trap Series no 839" (UPSA). – ♀: "Date 5.vi.1975, Habitat C Trap Series no 306" (SMNS). – ♂: "Date 26.vi.1975, Habitat C Trap Series no 1220" (JHAC). – ♂: "Date 5.vi.1975, Habitat A Trap Series no 986" (SMNS). – ♀: "Date 19.vi.1975, Habitat A Trap Series no 1097" (UPSA).

Etymology

Patronymic, dedicated to Prof. Erik Holm from the University of Pretoria, South Africa.



Figs. 1–5. *Attagenus holmi* n. sp. – **1**. Habitus, dorsal aspect (holotype). **2**. Left elytron, dorsal aspect (colour variability, paratype). **3**. Antenna of male. **4**. Antenna of female. **5**. Aedeagus. – All figures schematically, without setation.

Description

Holotype (♂): Body oblong, narrow, slightly arched. Measurements: TL 3.8 mm, EW 2.8 mm. Head longer than wide, finely punctate with long black pubescence, clypeus slightly extended. Palpi entirely brown; pubescence on mentum dense. Ocellus on front present. Antennae with 11 antennomeres, antennal club with 3 antennomeres, longer than other segments together (Fig. 3); terminal segment 5–6 times longer than two previous ones together, narrow, dark brown. Pronotum wider

than long, slightly arcuately narrowed forward; finely punctate (like head) with coarse, decumbent brown and white-yellow pubescence; pronotal white-yellow pubescence arranged in two small spots near scutellum and in broad spots laterally; anterior angles rounded, visible from above; posterior angles almost arcuate, middle of base slightly convexly extended. Scutellum triangular, finely punctate as pronotum, with short brown pubescence. Elytra finely punctate; cuticle dark brown with three orange-yellow spots covered by coarse decumbent white pubescence; other parts with coarse decumbent brown pubescence; elytral bands arranged as in Figs. 1–2. Legs brown with yellow pubescence; tarsi shorter than tibiae, the latter on their apical end with two distinct spines, on the exterior side with short cilia in two irregular lines. Femora of anterior legs with lateral deep furrow for insertion of tibia, middle and posterior legs with very indistinct furrow only, anterior tibiae without furrow for insertation of tarsi. Prosternum narrow, not erect before coxae; prosternal process short. Mesosternum and metasternum with short white pubescence. Abdominal sternites with long decumbent white pubescence. Male genitalia as in Fig. 5.

Female (paratype specimen "no 839"): Externally similar to male, differing by the structure of the antennae (Fig. 4); body measurements: TL 3.6 mm, EW 2.6 mm.

Variability

Measurements of paratypes: TL 3.6–3.8 mm, EW 2.6–2.8 mm. Dimension, width and contact spots and fasciae on elytra slightly variable (Fig. 2).

Differential diagnosis

Attagenus holmi n. sp. belongs to the subgenus *Attagenus* s. str. It differs from all so far known Afrotropical species by the following diagnostic characters: shape of male and female antennal club, elytral patterns and male aedeagus. The new species is habitually similar to *A. prescutellaris* Pic, 1927 and *A. fulvicollis* Reitter, 1881, but it differs by the shape and colour of the antennae and the arrangement of the elytral fasciae (see the key under chapter 3.2).

3.2 *Attagenus prescutellaris* Pic, 1927 (Figs. 6–8)

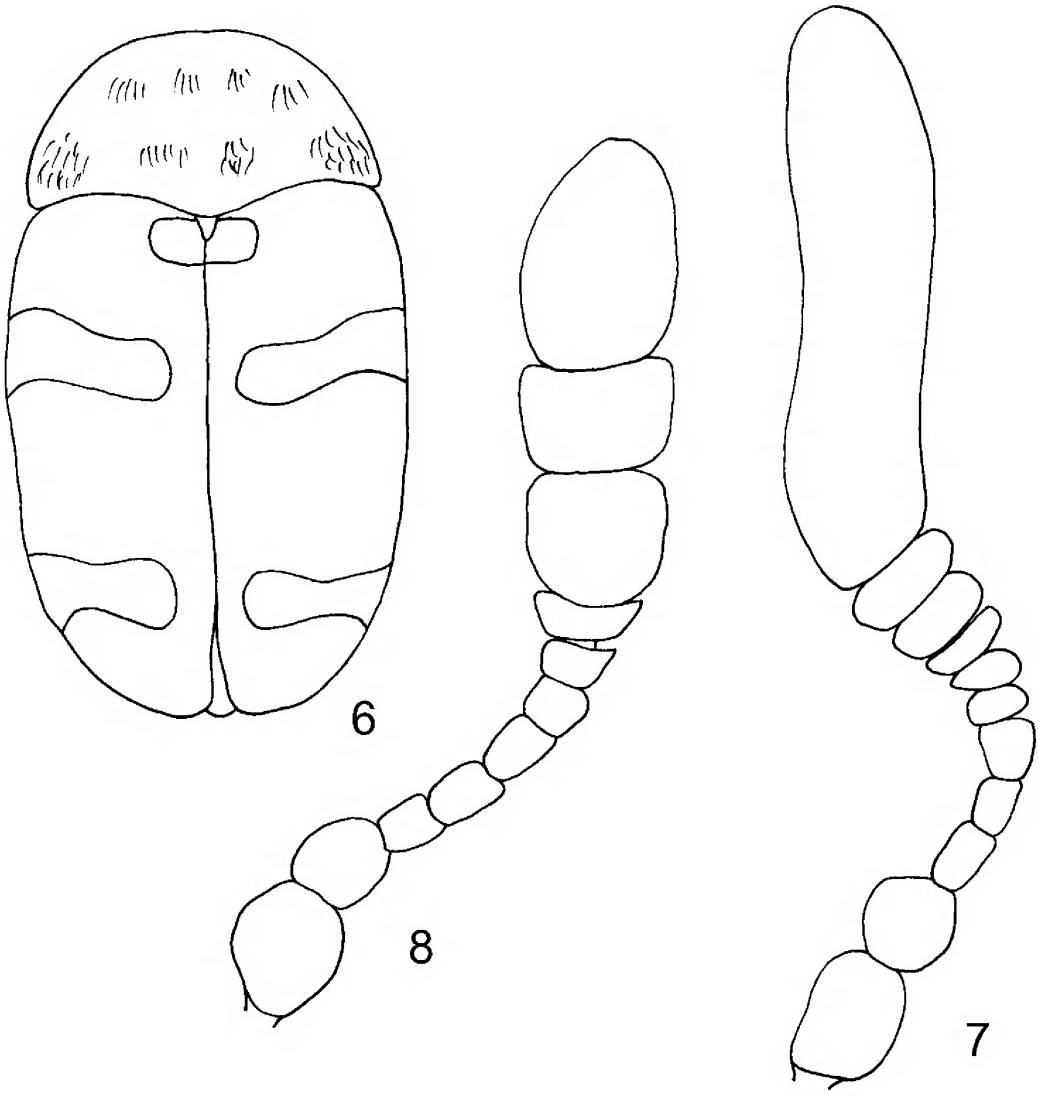
Attagenus prescutellaris Pic, 1927: Pic 1927a: 2.

Material

Lectotype (♂): "Dnubr" [small white hand-written label] \ "*prescutellaris* Pic" [white hand-written label]. – Paralectotype (♀): "Afr." [small white hand-written label] \ "type Pic" [small yellow-white hand-written label] \ "Dnubr" [small yellow-white hand-written label] \ "sp. près *laetus* Per" [yellow-white hand-written label] \ "n. sp. près *fulvicollis*" [yellow-white hand-written label] \ "*prescutellaris* n. sp." [yellow-white hand-written label]. – Lectotype and paralectotype (designated by Kalík 1971) deposited in MNHN.

Original description

"Oblongus, postice attenuatus, nitidus et subhirsutus, niger, thorace luteo multi maculato, elytris transverse rufo bifasciatis, fasciis fere rectis, suturam non attingintibus, et ad scutellum rufo maculatis; infra corpore griseo pubescente. Long. 4 mill. Afrique Méridionale. – Voisin de *fulvicollis* Reitt., en diffère par le prothorax plus foncé, la macule préscutellaire, etc."



Figs. 6–8. *Attagenus prescutellaris* Pic, 1927. – **6.** Habitus, dorsal aspect (lectotype). **7.** Antenna of male. **8.** Antenna of female. – All figures schematically, without setation.

Redescription

Lectotype (♂): Body oval, black with golden-yellow fasciae on elytra (Fig. 6). Measurements: TL 3.4 mm, EW 2.0 mm. Head finely punctate. Ocellus on front present. Antennae with 11 antennomeres (Fig. 7); antennomeres I–X brown, XI black. Pronotum finely punctate, black, covered by brown-black pubescence, with small patches of golden-yellow setae. Scutellum triangular. Elytra coarsely punctate, black, with two transverse fasciae and prescutellar spot covered by golden-yellow pubescence, other parts covered by brown-black pubescence. Prosternum and mesosternum covered by golden-yellow pubescence. Abdominal sternites covered by golden-yellow pubescence. Legs dark brown. Male aedeagus not figured.

Female: externally similar to male, differing by the structure of the antennae (Fig. 8). Measurements: TL 3.6 mm, EW 2.0 mm.

Remarks

There are no illustrations in PIC's original description. Habitus and antennae are illustrated here for the first time. *A. prescutellaris* Pic is very similar to *A. fulvicollis* Reitter, 1881, but differs from this species by the characters of the following key:

1 Prescutellar spot present (Fig. 6); terminal antennal segment black. – South Africa ..... ***A. prescutellaris*** Pic
– Prescutellar spot absent; terminal antennal segment black or brown **2**
2 Each elytron with two transverse fasciae covered by golden-yellow pubescence; antennal club black. – South Africa ..... ***A. fulvicollis*** Reitter
– Each elytron with two orange-yellow transverse fasciae and apical spot covered by white pubescence (Fig. 1); antennal club brown. – South Africa: Northern Province ..... ***A. holmi* n. sp.**

3.3 *Attagenus rufiventris* Pic, 1927

Attagenus rufiventris Pic, 1927: PIC 1927b: 246.
Attagenus rufiventris: KALÍK 1955: 296, fig. 1.

Material

Holotype (♀) of *A. rufiventris*: "Transvaal, HARTMANN" \ "*Attagenus rufiventris*" [white hand-written label] (DEIC).

Other material studied: "Caffraria, WAHLB. 2020" \ "mas novus" KALÍK det. 1990, 1♂ (NHRS). – "Süd Afrika, Betschuanald., Serne, 27.xi.06, SEINER S. G.", KALÍK det. 1980, 1♂ (ZMUB). – "Süd. Afr., Serne 2.11.06, SEINER S. G.", KALÍK det. 1990, 1♀, (ZMUB). – "N. Transvaal, Zoutpansbergen-Pans, D. L. UYTTENBOOGAART, 9–10.x.1938", KALÍK det. 1989, 1♂ (ZMAN).

Remarks

The species *Attagenus rufiventris* was described by PIC (1927b) after a single female specimen from Transvaal. KALÍK (1955) redescribed the species *Attagenus rufiventris* and presented illustrations based on female specimens. The male specimens differ from females by the following characters: antennae brown, antennal club consisting of 3 antennomeres; terminal antennomere narrow and long; 4 times as long as its maximum width.

Distribution

South Africa, Tanzania, Uganda (HÁVA 2003a).

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